

REMARKS

This response is intended as a full and complete response to the final Office Action mailed April 13, 2006. In the Office Action, the Examiner notes that claims 1-9 and 21-28 are pending and rejected. By this response, Applicants have herein amended claims 1-3, 5-8, 21-22 and 24-27. Claims 4 and 23 are hereby cancelled.

In view of the foregoing amendments and the following discussion, Applicants submit that none of the claims now pending in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §§102 and 103. Thus, Applicants believe that all of these claims are now in allowable form.

It is to be understood that, by amending the claims, Applicants do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response with amendments.

Rejection Under 35 U.S.C. §102

Claims 1-2, 5, 8-9, 21-22, 24-25, and 27-28

The Examiner has rejected claims 1-2, 5, 8-9, 21-22, 24-25 and 27-28 under 35 U.S.C. 102(e) as being anticipated by Field et al. (U.S. Patent 6,018,764, hereinafter "Field"). Applicants respectfully traverse the rejection.

In general, Field teaches mapping of Uniform Resource Locators (URLs) to broadcast addresses in a television signal. As taught in Field, web pages and other Internet information resources are retrieved from a one-way broadcast signal such as a broadcast television signal. A user selects from a range of information which is carried in the broadcast stream. Table mapping data is carried in the broadcast signal and provides a broadcast address corresponding to the URL of the user request signal for use in identifying a location in the broadcast signal from which the desired information can be retrieved. (Field, Abstract).

Field, however, fails to teach or suggest each and every element of Applicants' invention of at least claim 1. Namely, Field fails to teach or suggest at least the limitations of "said switch between downstream channels being delayed until a time at

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which one of said information data streams including said requested Internet-based information is to be transmitted from said network headend, said time being determined using timing information identifying when each of said information data streams is to be transmitted from said network headend," as taught in Applicants' invention of at least claim 1.

Applicants' invention teaches a switch from selecting a downstream channel on which a selected video program is transmitted to selecting, via one-way hyperlinking, a downstream channel on which requested Internet-based information is transmitted from a headend. As taught in Applicants' invention the switch between downstream channels is delayed until a time at which one of the information data streams including the requested Internet-based information is to be transmitted from the network headend. Furthermore, this time is determined using timing information identifying when each of the information data streams is to be transmitted from the network headend. Support for these limitations is found in at least the following portions of Applicants' specification as originally filed:

"To facilitate efficient downloading of the requested channel hyperlink content, the terminal processor preferably waits until the data of interest appears in the carousel at the headend, and then instructs the set top's tuner to switch away from the television channel that a user is currently viewing. The requested content is downloaded into a cache in the set top, and the tuner is then instructed to switch back to the original program channel. In this manner, the amount of time that the user cannot watch their program during downloading of the requested hyperlink content is minimized." (Specification, Pg. 4).

"To minimize the amount of time that the user cannot watch their program, the time-map of the channel hyperlink content that is stored in the channel mapping database 46 is employed by the terminal processor 44 to delay tuning off of the video channel until the data of interest appears in the multiplexer 38 at the headend 12, and is about to be broadcast. For example, if the multiplexer carousel is ten seconds long and the user presses the hyperlink button, there may be as much as a ten second wait for the data to appear in the carousel. Without using the time mapping information, and assuming a one second tuning time, the user would miss an average of eight seconds of their television program when pressing the channel hyperlink button (one second to tune to data channel, average of five seconds for data to come around in the carousel, one second to collect and process the data, and one second to tune back to video programming). However, by using the time mapping information, this delay can be reduced to three seconds: one second to tune the data channel, one second

to collect and process the data and one second to tune back to the television program." (Specification, Pgs. 13-14).

As taught in Applicants' specification and Applicants' invention of at least claim 1, upon receiving a request for Internet-based information from a user, the terminal processor instructs the tuner switch between downstream channels in such a manner that the switch is delayed until the information data stream conveying the requested Internet-based information is being transmitted from the headend. In other words, Applicants' invention minimizes the amount of time that the tuner is tuned to the downstream channel including the information data stream conveying the requested Internet-based information. As such, Applicants' invention advantageously minimizes the amount of time that the user cannot watch the selected video program during downloading of the requested Internet-based information.

By contrast, Field merely teaches use of a URL mapping table which maps URLs identifying HTML data carried in a broadcast signal to the location in the broadcast signal in which the HTML data may be found. When a user initiates a request for HTML data, the television receiver uses the URL mapping table in order to identify the location of the HTML data in the television broadcast signal. For example, for satellite broadcast, the URL mapping table of Field identifies a specific satellite, transponder, PID, and page number on which the HTML data is broadcast. The television receiver retrieves the HTML data from the identified location in the broadcast stream and presents the retrieved information to the user.

In other words, Field is only directed toward identifying the location of requested HTML data within a broadcast stream. Field is completely devoid of any teaching or suggestion of determining any timing information related to the time at which requested HTML data is transmitted from the headend. Similarly, Field is completely devoid of any teaching or suggestion of delaying a switch between tuning to a downstream channel on which television programming is being transmitted to tuning to a downstream channel on which requested HTML data is being transmitted. The identification of the location of Internet information within a broadcast signal, as taught in Field, does not teach or suggest identification of a time at which an information data stream including requested Internet-based information is to be transmitted from the network headend, as taught in

Applicants' invention of at least claim 1. As such, it is respectfully submitted that Field does not disclose each and every element of the claimed invention, arranged as in the claim.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 U.S.P.Q. 193 (Fed. Cir. 1983)) (emphasis added). Field does not teach each and every element of the claimed invention, arranged as in the claim.

Therefore, Applicants submit that independent claim 1 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Independent claim 21 includes relevant limitations similar to those recited in independent claim 1 and, accordingly, for at least the same reasons discussed above, independent claim 21 is not anticipated and fully satisfies the requirements of 35 U.S.C. §102. Furthermore, claims 2, 5, 8-9, 22, 24-25 and 27-28 provide additional limitations and are dependent directly or indirectly from independent claims 1 and 21. As such, and for at least the same reasons set forth above, Applicants submit that these dependent claims also are not anticipated by the teachings of the prior art and fully satisfy the requirements of 35 U.S.C. §102.

Therefore, Applicants respectfully request withdrawal of the rejection of claims 1-2, 5, 8-9, 21-22, 24-25, and 27-28.

Rejection under 35 U.S.C. §103

Claims 3-4, 7, 23, and 26

The Examiner has rejected claims 3-4, 7, 23, and 26 under 35 U.S.C. §103(a) as being unpatentable over Field in view of Mao et al. (U.S. Patent No. 6,886,178, hereinafter "Mao"). Applicants respectfully traverse the rejection.

Claims 3-4, 7, 23, and 26 depend, directly or indirectly, from independent claims 1 and 21 and recite additional limitations thereof. For at least the reasons discussed above, the Field reference fails to teach or suggest Applicants' invention of at least claims 1 and 21, as a whole. Namely, Field fails to teach or suggest at least the

limitations of "said switch between downstream channels being delayed until a time at which one of said information data streams including said requested Internet-based information is to be transmitted from said network headend, said time being determined using timing information identifying when each of said information data streams is to be transmitted from said network headend," as taught in Applicants' invention of at least claim 1. Furthermore, Mao fails to bridge the substantial gap as between Field and Applicants' invention of claims 1 and 21.

Mao teaches a digital TV system with synchronized World Wide Web content. As taught in Mao, the headend server broadcasts a rotating carousel comprising an ensemble of webpages in HTML format containing both broadcast webpages and simulcast webpages, and control map permitting the user to navigate among the HTML webpages. Specifically, Mao teaches that "[i]n response to a broadcast Web page request 520, a table lookup function 518 finds the PID, tableID and tableIDext needed to locate the desired broadcast HTML Web page 517 in the rotating data carousel of the MPEG-2 data stream. The located broadcast HTML page 517 is stored in the settop and displayed 530. The maximum latency of the system to find a given HTML Web page is the amount of time it takes the rotating carousel of HTML Web pages to repeat itself." (Mao, Col. 7, Lines 46-54, Emphasis added).

In other words, Mao, like Field, merely teaches identifying the location of HTML data within an MPEG-2 data stream. Mao is completely devoid of any teaching or suggestion of determining any timing information related to the time at which requested HTML data is transmitted from the headend. Similarly, Mao is completely devoid of any teaching or suggestion of delaying a switch between tuning to a downstream channel on which television programming is being transmitted to tuning to a downstream channel on which requested HTML data is being transmitted. Moreover, Mao specifically states that the user must wait until the rotating carousel of HTML Web pages repeats itself before the HTML data is received, clearly indicating that there is no delay in selecting the location of the HTML Web page. As such, Mao is devoid of any teaching or suggestion of using timing data to delay switching between tuning to a downstream channel on which a television program is being transmitted to tuning to a downstream channel on which requested HTML data is being transmitted, as taught in Applicants'

invention of claims 1 and 21. As such, Field and Mao, alone or in combination, fail to teach or suggest Applicants' invention of claims 1 and 21, as a whole.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather, the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 U.S.P.Q. 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The combination of Field and Mao fails to teach or suggest Applicants' invention as a whole.

As such, Applicants submit that the teachings of Field and Mao, alone or in combination, fail to teach or suggest Applicants' claims 1 and 21 and further, Applicants' dependent claims 3-4, 7, 23, and 26 which depend from Applicants' claims 1 and 21 and recite additional limitations thereof. Thus, Applicants submit that dependent claims 3-4, 7, 23, and 26 are not obvious and are patentable under 35 U.S.C. §103. Therefore, Applicants respectfully request the withdrawal of the Examiner's rejection of claims 3-4, 7, 23, and 26.

Claims 6 and 25

The Examiner has rejected claims 6 and 25 under 35 U.S.C. §103(a) as being unpatentable over Field in view of Bendinelli et al. (U.S. Patent No. 6,061,719, hereinafter "Bendinelli"). Applicants respectfully traverse the rejection.

Claims 6 and 25 depend, directly or indirectly, from independent claims 1 and 21 and recite additional limitations thereof. For at least the reasons discussed above, the Field reference fails to teach or suggest Applicants' invention of at least claims 1 and 21, as a whole. Namely, Field fails to teach or suggest at least the limitations of "said switch between downstream channels being delayed until a time at which one of said information data streams including said requested Internet-based information is to be transmitted from said network headend, said time being determined using timing information identifying when each of said information data streams is to be transmitted from said network headend," as taught in Applicants' invention of at least claim 1.

Furthermore, Bendinelli fails to bridge the substantial gap as between Field and Applicants' invention of claims 1 and 21.

Bendinelli teaches synchronized presentation of television programming and web content. As taught in Bendinelli, URLs or other network information identifiers are transmitted with television signals in order to permit web content to be displayed in synchronization with television programming. Bendinelli, however, is completely devoid of any teaching or suggestion of determining any timing information related to the time at which requested HTML data is transmitted from the headend, much less delaying a switch between tuning to a downstream channel on which television programming is being transmitted to tuning to a downstream channel on which requested HTML data is being transmitted, as taught in Applicants' invention of claims 1 and 21. As such, Field and Bendinelli, alone or in combinations, fail to teach or suggest Applicants' invention of claims 1 and 21, as a whole.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather, the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 U.S.P.Q. 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 U.S.P.Q. 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The combination of Field and Bendinelli fails to teach or suggest Applicants' invention as a whole.

As such, Applicants submit that the teachings of Field and Bendinelli, alone or in combination, fail to teach or suggest Applicants' claims 1 and 21 and further, Applicants' dependent claims 6 and 25 which depend from Applicants' claims 1 and 21 and recite additional limitations thereof. Thus, Applicants submit that dependent claims 6 and 25 are not obvious and are patentable under 35 U.S.C. §103. Therefore, Applicants respectfully request the withdrawal of the Examiner's rejection of claims 6 and 25.

CONCLUSION

Thus, Applicants submit that none of the claims, presently in the application, is anticipated or obvious under the respective provisions of 35 U.S.C. §§102 and 103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley at (732) 383-1434 or Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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